

Rhus L. SUMAC

Rhus integrifolia (Nutt.) Rothr., LEMONADEBERRY. Shrub or small tree, evergreen, sclerophyllous, highly branched with dense canopy, in range 100–600 cm tall; gynodioecious; shoots in full sun with mostly ascending to erect leaves, in early spring forming new shoots from axillary buds below inflorescences, strongly aromatic like wintergreen (*Gaultheria*) when cut or crushed (having resin ducts with terpenes). **Stems:** cylindrical, limber, when young red and brown with grayish cast from pubescence and scaly waxy plates; producing colorless resin in bark ducts, in \times -section the ducts elliptic, 16–18 arranged in ring; twig bark dull gray, trunk bark with thick, gray flakes; trunk to 40 cm diameter in arborescent forms. **Leaves:** helically alternate, simple, petiolate, without stipules; petiole 4–12(–15) mm long, reddish, sparsely pubescent and waxy with \pm scaly plates; blade broadly elliptic to elliptic-ovate, (15–)25–70 \times (10–)20–45 mm, leathery, flat or \pm cupped to underside, broadly tapered to round at base, entire or coarsely serrate with shallow teeth and wavy on margins, \pm transparent light pink or green at edge, \pm obtuse to broadly acute at tip, pinnately veined with principal veins slightly raised on both surfaces, glabrous or with hairs and \pm scaly waxy plates along lower midrib, satiny to glaucous, upper surface dark green, lower surface yellow-green. **Inflorescence:** panicle of spikes having either pistillate flowers or bisexual flowers (separate individuals), panicle 20–70 \times 20–50 mm, compact spikes on primary to tertiary branches, many-flowered, formed during summer at tip of each new vegetative shoot to bloom in winter and spring, bracteate, pubescent and waxy; bract subtending each branch awl-shaped to acuminate, 1–2 mm long, sometimes with inrolled margins, persistent at base; bractlet subtending flower cupped broadly ovate to obovate, 1.5–2(–2.5) mm long, thick and leathery, strigose, ciliate with nonglandular and reddish glandular hairs, persistent; pedicel short, tough, with dense tuft of short hairs beneath flower, with 2 bracteoles beneath tuft of hairs, the bracteoles subopposite (not 180° apart), like bractlet but shorter. **Bisexual flower:** radial, 7–8 mm across; **sepals** 5, forming bowl-like calyx, overlapping, unequal, cupped and roundish to rhombic-ovate, 2–3.4 mm long, commonly as wide as long, light green at base and colorless to whitish or pink on membranous margins, ciliate with translucent whitish nonglandular and glandular hairs, the latter becoming reddish, persistent; **petals** 5, oblong or oblanceolate to obovate, (4–)5–6.2 \times 2–2.8 mm, white to dark pink or rose, ciliate on margins, with hairs on upper (inner) surface (at least at base); **stamens** 5, free, arising from below nectary disc; filaments cylindrical, 2.5–4 mm long, tapered to tip, whitish to pink or later dark rose, villous at base or higher; anthers dorsifixed, dithecal, 1.3–2.3 mm long, yellow, longitudinally dehiscent; pollen yellow; **nectary disc** surrounding base of ovary, ringlike, 2 mm diameter, greenish yellow to yellowish orange or dark red, wavy or 10-toothed, with filament passing between alternate teeth, producing copious nectar; **pistil** 1, 1.7–2 mm long; ovary superior, spheric, \pm 0.8 mm, densely nonglandular and glandular-hairy, 1-chambered with 1 ovule; styles 3, club-shaped, free to base, curving outward when receptive, white or yellowish to dark rose; stigma = depressed circular area at tip of style, wet, bordered by nonglandular hairs. **Pistillate flower:** radial, 7–8 mm across; **sepals** 5, forming bowl-like calyx, overlapping, unequal, roundish to rhombic-ovate and cupped, 2–3.4 mm long, commonly as wide as long, light green at base and colorless to whitish or pink on membranous margins, ciliate with translucent whitish nonglandular and glandular

hairs, the latter becoming reddish, persistent; **petals** 5, oblong or oblanceolate to obovate, (4–)5–6.2 × 2–2.8 mm, white to dark pink or rose, ciliate on margins, with hairs on upper (inner) surface (at least at base); **stamens** 5, free, arising from below nectary disc; filaments cylindric, 2.5–4 mm long, tapered to tip, whitish to pink or later dark rose, villous at base or higher; anthers aborted; **nectary disc** surrounding base of ovary, ringlike, 2 mm across, greenish yellow to yellowish orange or dark red, wavy or 10-toothed with filament passing between alternate teeth, producing copious nectar; **pistil** 1, 1.7–2 mm long; ovary superior, spheric, ± 0.8 mm, densely nonglandular and glandular-hairy, 1-chambered with 1 ovule; styles 3, club-shaped, free to base, curving outward when receptive, white or yellowish to dark rose; stigma = depressed circular area at tip of style, wet, bordered by nonglandular hairs. **Fruit:** drupelike, with 1 stone, compressed rhombic-ellipsoid, 7–11 × 7.5–9 mm, dark red to reddish brown, sticky, conspicuously glandular-hairy and nonglandular-pilose, whitish from swollen, glandular hairs, with persistent sepals; stone (endocarp) leathery (not hard). (Mid-November) Early December–mid-May.

Native. A common evergreen shrub or small tree occurring throughout the range in chaparral and coastal sage scrub, including along coastal bluffs, where specimens can have a very low aspect. The sclerophyll *Rhus integrifolia* is very aromatic when a branch is removed, due to terpenoids produced in resin ducts. In a population one will observe specimens having different flower color, white to pink or rose-colored, as well as individuals with bisexual flowers versus others with only pistillate flowers (having aborted anthers). The fleshy fruits are exceedingly sticky (resinous) when fresh.

B. A. Prigge & A. C. Gibson